

## BIODIVERSITY CONSERVATION THROUGH RELIGIOUS BELIVES IN SACRED GROVES OF JABALPUR FOREST DIVISION (MADHYA PRADESH)

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### ABSTRACT

*Sacred Groves are the one form of nature worship, which is considered as "Sacred Natural Sites". Significant tradition of nature worship provides protection to patches of forests dedicated to deities and ancestral spirits by the tribal and forest dwellers. The survey work was carried out from 2013-2016 in Jabalpur forest division, to assess the role of Phyto diversity in existing sacred groves situated in the forest area. Historical background, ethnic belief and the socio-cultural importance about sacred groves were collected from each sacred grove. Total 105 sacred groves had been identified from the seven forest ranges of Jabalpur forest division. The 129 plant species belonging to 56 families and 105 genres are conserved in these sacred groves, due to their socio-religious importance. According to their mode of use such as during different pages, festivals and religious ceremonies are discussed in this paper, in detail.*

**KEYWORDS:** Historical Background, Ethnic Beliefs & Socio Cultural

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### INTRODUCTION

Sacred groves are forest fragments of varyaing sizes, communally protected in the name of local gods and goddess. Hunting and logging are strictly prohibited within these patches. Indian sacred groves have pre-Vedic origin. Most of them are associated with indigenious and tribal communities, who most believe in divinity of nature and natural resources. Sacred groves in India are sometimes associated with temples, monasteries, shrines and burial grounds. Patnaik & Pandey (1998) defined sacred groves as culturally a living place of the deities and spirits of the village, which protects them from calamities and bring prosperity and a patch of pristine forest, having well conserved biodiversity. In return, the villagers regularly propitiate them by means of rituals, sacrifice on festivals or seasons designated for the same.

These groves are scattered all over the country, and are referred by different names in different states. According to Sukumaran & Jeeva (2008), sacred grove is a small area of land with a particular type of tree grown on it, which is considered to be holy by the local human community. Sacred groves are groups of trees or patches of vegetation protected by the local people through religious and cultural practices, evolved to minimize distraction. The significant tradition of nature worship is that of providing protection to patches of forests dedicated to deities or ancestral spirits. These vegetation patches have been designated as sacred groves (Patel & Patel, 2012).

Jabalpur is a district in Madhya Pradesh state. It lies between the latitudes 22° 37" N to 22° 50" N and

longitudes of 79° 20" to 80° 34" East. The area of the district is 5211 km<sup>2</sup>. It is located in the watersheds of the Narmada and the Son rivers. According to the 2011 census, the total population of the district is 2,463,289. According to Indian State of Forest Report (ISFR, 2015), the total forest area of the Jabalpur forest division is 117000 ha, out of which, very dense forest, moderately dense forest, open forest and scrub are 3600 ha, 51400 ha, 62000 ha and 15400 ha, respectively. As per the Classification of the forest area of India (Champion and Seth, 1968), the forest area of Jabalpur forest division is classified under the following classes:-

- **5AC1b:** Southern tropical dry deciduous teak forests
- **5AC3:** Southern tropical dry deciduous mixed forests

According to Working Plan of Jabalpur Forest Division, M. P. Forest Department (Sinha, 2005-06 to 2014-15), the forest division is divided into seven forest ranges, namely Panagar, Kundam, Sihora, Jabalpur, Patan, Sapporo, and Bargi. These seven ranges are having 81 beats and 345 compartments.

## METHODOLOGY

Detailed field survey of existing sacred groves in the Jabalpur forest Division of Madhya Pradesh was carried out from 2013 to 2016.

Each sacred grove had been visited individually and recorded by GPS location, photographs and detail information regarding its forest range, name, type, management class, area (in m<sup>2</sup>), age class (existence), deity of the grove, other associated deity (if any), offerings, day of worship and plant diversity of the grove. Sacred groves are frequently visited on major festivals celebrated there.

All plant species recorded from various sacred groves were identified and arranged family species wise, with the help of "Flora of British India" Hooker's (1872-1897); "The Forest Flora of North-West and Central India" Brandis & Stewart (1874); "Flora of Tamil Nadu" Nair & Henry (1983). "Flora of Jabalpur" Oommachan & Shrivastava (1996); "Supplement to the Flora of Madhya Pradesh" Khanna, Kumar, Dixit & Singh (2001); "Flora of Madhya Pradesh Vol. – 1" Verma, Balakrishnan & Dixit (1993); "Flora of Madhya Pradesh Vol. – 2" Mudgal, Khanna & Hajra (1997); and "Flora of Madhya Pradesh Vol. – 3" (Singh, Khanna, Mudgal & Dixit (2001).

## RESULTS AND DISCUSSIONS

### Sacred Groves

During the study, all seven ranges, namely Panagar, Kundam, Sihora, Jabalpur, Patan, Sapporo, and the barge were visited to identify the existing sacred groves. Total 105 sacred groves have been identified from different beats and forest compartments of these ranges. The highest number of sacred groves (24) has been identified from Kundam forest ranges, whereas the lowest number of sacred groves (3) identified from a Patan forest range. The numbers of identifies sacred groves in different ranges are shown in **Table 1**.

**Table 1: No. of Identified Sacred Groves in different Ranges of Jabalpur Forest Division**

S. No.	Name of Forest Range	No. of Identified Sacred Groves
1	Bergi	23
2	Jabalpur	20

Table 1: Contd.,		
3	Kundam	24
4	Panager	12
5	Patan	3
6	Sehpura	12
7	Sihora	11
Total		105

### Plants of Socio-Religious Importance

During the survey work on existing sacred groves of Jabalpur forest division, an inventory was made of plant species, having sacred and religious importance. Total 129 plant species belonging to 56 families and 105 genuses were catalogued, out of which, some of them are tree, shrub, herb, climber and grass categories. The list of such recorded plant species is given in **Table 2** with botanical name, local name, part used and name of the festival and socio-religious occasion and socio-religious importance of the species. A number of plant parts used for various religious occasions are shown in **Figure 1**.

**Table 2: Plants of Socio-Religious Importance**

S. No.	Botanical Name	Local Name	Part Used	Socio-Religious Occasion
1	<i>Acacia catechu</i>	Kattha, Khair	Whole plant	Agni deo pooja and Hawans
2	<i>Achyranthes aspera</i>	Apamarg, Chirchira	Branch	Various faste
3	<i>Actinopteris radiata</i>	Morpankhi ghans	Whole plant	Harchat pooja
4	<i>Aegle marmelos</i>	Bel	Leaves, fruits	Savwan somwar, Maglagauri, Shiveratri pooja, Krishna and janmashtami
5	<i>Annona reticulata</i>	Ram phal	Whole plant	Worshiped as sacred plant
6	<i>Annona squamosa</i>	Sheeta phal	Fruit	Durga, Lakshmi, Saraswati, Dasher and Gyaras pooja
7	<i>Anthocephalus cadamba</i>	Kadam	Whole plant	Krishna janmashtami, Gudi padwa
8	<i>Araca catechu</i>	Supari	Fruit	Mangala Gauri pooja
9	<i>Avena sterilis</i>	Jawa	Branch, flower	Basant Panchami, Janki navmi and Shuki oaksh
10	<i>Azadirachta indica</i>	Neem	Whole plant	Gudi padwa, Shiva pooja, Santaan saptmee
11	<i>Bauhinia purpurea</i>	Keolar	Flower	Shiva pooja
12	<i>Bauhinia vahlii</i>	Mahul	Leaves	Poojas
13	<i>Bauhinia variegata</i>	Kachnar	Flower	Shiva pooja, Santaan saptmee
14	<i>Bixa orellana</i>	Latkan/Sindoor	Fruit	Various poojas
15	<i>Boerhavia diffusa</i>	Punarnava/Pathar-chatta	Whole plant	Worshiped as sacred plant
16	<i>Brassica copastris</i>	Sarson	Seed	Poornima, akshay tritiya
17	<i>Bridelia retusa</i>	Kasai	Whole plant	Worshiped as sacred plant
18	<i>Buchanania lanzan</i>	Achar	Seed, branch	Various pooja
19	<i>Butea monosperma</i>	Palash	Whole plant	Manglagauri, Ganesh pooja, Navratri, Shiv pooja. Poornima akshay tritiya and Hal Shasthi
20	<i>Calatropis gigaintia</i>	Aak	Flower, leaves	Manglagauri, Ganesh pooja, Navratri, Shiv pooja, Holi
21	<i>Calatropis procera</i>	Aak white, Madar	Flower, leaves	Death occasion, Shivratri, Bajarngbali, Manglagauri, Navratri, Ganesh pooja
22	<i>Cannabis sativa</i>	Bhang	Whole plant	Shivaratri pooja, holi, Navratri and for black magic

Table 2: Contd.,				
23	<i>Capparis sepiaris</i>	Andi, aundi	Whole plant	Holi pooja
24	<i>Capsicum annuum</i>	Mirchi	Fruit	Prosperity decoration
25	<i>Carica papaya</i>	Papita	Fruit	Various poojas
26	<i>Carissa carandas</i>	Karonda	Fruit	Various poojas
27	<i>Cassia fistula</i>	Amaltas	Whole plant	Worshiped as sacred plant
28	<i>Catharanthus roseus</i>	Sadasuhagan	Flower	Various poojas
29	<i>Cicer arietinum</i>	Chana	Fruit	Shivratri, Bajrangbali pooja
30	<i>Citrus aurantifolia</i>	Aterra neebu	Fruit	Navratri, Shivratri poojas and for black magic
31	<i>Citrus medica</i>	Neembu	Fruit	Navratri, Shivratri poojas and for black magic
32	<i>Cleome viscosa</i>	Hulhul	Whole plant	Poojas
33	<i>Clitoria ternatea</i>	Aprajita	Whole plant	Prosperity decoration, Marriage ceremony
34	<i>Coccus nucifera</i>	Nariyal	Fruit	Various poojas specially Ganesh and Mahalaxmi pooja
35	<i>Curcuma angustifolia</i>	Tikhur	Rhizome	During faste
36	<i>Curcuma caesia</i>	Kali haldi	Whole plant	Siddhi pooja
37	<i>Curcuma domestica</i>	Jangli haldi	Fruit	Various poojas
38	<i>Curcuma longum</i>	Haldi	Fruit	Applied to the forehead of gods
39	<i>Cynodon dactylon</i>	Doob	Whole plant	Hal Shasthi, Ganesh and Mahalaxmi pooja, prosperity decoration
40	<i>Cyperus scariosus</i>	Nagarmotha	Rhizome	Rhizome powder is used as dhoop during pooja.
41	<i>Dalbergia sissoo</i>	Shisham	Whole plant	Various poojas
42	<i>Datura metel</i>	Kala dhatura	Fruit	Shivaratri pooja
43	<i>Datura stramonium</i>	Dhatura	Fruit	Shivaratri pooja
44	<i>Delonix regia</i>	Gulmoher	Flower	Various poojas
45	<i>Desmodium triflorum</i>	Teen patiya	Whole plant	Poojas
46	<i>Desmostachya bipinnata</i>	Kush grass	Whole plant	Various religious ceremony
47	<i>Dioscorea hispida</i>	Baichandi	Whole plant	Poojas
48	<i>Diospyros melynoxylon</i>	Tendu	Fruit	Various pooja
49	<i>Eclipta prostrate</i>	Bhringraj	Whole plant	Poojas
50	<i>Elaeocarpus sphaericus</i>	Rudraksha	Fruit, leaves	For Nakshatra shanty, to cover the marriage mandap
51	<i>Elephantopus scaber</i>	Ban tambaku	Leaves	Shivaratri pooja
52	<i>Elettaria cardimomum</i>	Ilaychee	Fruit	Mangala Gauri pooja
53	<i>Euphorbia hirta</i>	Dudhi	Flower	Poojas
54	<i>Evolvulus elsinoides</i>	Sankhpushpi	Flower	Shiv pooja
55	<i>Ficus bengalensis</i>	Bargad, Bar	Whole plant	Vad Savitri, Bar amavashya, Satyanarayan, Ganesh Chaturthi, Durga pooja and to cover marriage mandap
56	<i>Ficus hispida</i>	Kagsha	Whole plant	Worshiped as sacred plant
57	<i>Ficus racemosa</i>	Goolar	Branch	Hal Shasthi
58	<i>Ficus religiosa</i>	Peepal	Whole plant	Harchhath, Ganesh, Shani, Durga and rishi pooja
59	<i>Ficus virens</i>	Pakar	Whole plant	Navratri, Anant pooja and in Cremation
60	<i>Flacourtia indica</i>	Kakai	Whole plant	Worshiped as sacred plant
61	<i>Glericidia sepium</i>	Giripushpa	Flower	Various poojas
62	<i>Gloriosa superba</i>	Kalihari, Kirkitchyau	Leaves, flower	Harchat, Mahalaxmi and Anant pooja
63	<i>Gossypium hirsutum</i>	Kapas	Fruit	Poojas
64	<i>Haldinia cordifolia</i>	Haldu	Whole plant	Worshiped as sacred plant

Table 2: Contd.,				
65	<i>Hibiscus rosa-sinensis</i>	Jasoon, Gurhal	Flower	Durga pooja, Laxmi pooja
66	<i>Hiptage benghalensis</i>	Madhavi Lata	Whole plant	Worshiped as sacred plant
67	<i>Indigofera pulchella</i>	Neel	Whole plant	Worshiped as sacred plant
68	<i>Ipomoea batas</i>	Sakarkand	Rhizome	Ganesh Chaturthi vrata, Tulsi vivah, Satyanarayan katha and Mahalaxmi pooja
69	<i>Ixora coccinea</i>	Rugmini, Red star	Flower	Shiv pooja
70	<i>Jasminum grandiflorum</i>	Chameli	Flower	Many religious occasions
71	<i>Jasminum officinalis</i>	Chadni	Flower	Various poojas
72	<i>Jasminum sambac</i>	Bela	Flower	Many poojas
73	<i>Jatropha curcas</i>	Ratanjot, safed arund	Flower	Many poojas
74	<i>Lannea coromandelica</i>	Moyan	Whole plant	Worshiped as sacred plant
75	<i>Lausonia inermis</i>	Mehendi	Leaves	Durga pooja, Rakhshabandan, Marriage ceremony
76	<i>Limonia acidissima</i>	Kaitha	Fruit	Mahashivratri pooja
77	<i>Madhuca latifolia</i>	Mahua	Whole plant	Harchhath, Anant and Druga pooja
78	<i>Mallotus philippensis</i>	Sinduri	Fruit	Various poojas
79	<i>Mangifera indica</i>	Aam, Mango	Leaves, flower	Mangalagauri, Basant Panchami, Navratri, Anant and Srikrishna pooja
80	<i>Michelia champaca</i>	Sone champa	Flower	Shivratri, Navratri pooja
81	<i>Mimusops elengi</i>	Maulsari	Whole plant	Worshiped as sacred plant
82	<i>Mirabilis jalapa</i>	Gulbans	Flower	Various poojas
83	<i>Mitragyna parvifolia</i>	Mundi	Whole plant	Worshiped as sacred plant
84	<i>Morus australis</i>	Shahtut	Fruit	Various poojas
85	<i>Murraya paniculata</i>	madhukamini	Whole plant	Various poojas
86	<i>Musa paradisiaca</i>	Kela	Whole plant	Devthan pooja, Ahoashtami, Tulsi vivah and for getting child
87	<i>Nelumbium nucifera</i>	Kamal, Lotus	Flower	harchhat, Lakshmi, Saraswati, Vishnu and Brahma pooja
88	<i>Nerium indicum</i>	Kaner	Leaves	Mahashivratri pooja, Cremation and in Decoration
89	<i>Nyctanthes arbortristis</i>	Harsingar	Flower	Hartalika, Ashokashtami and Anant pooja
90	<i>Ocimum americanum</i>	Tulsi	Whole plant	Worshiped as sacred plant
91	<i>Ocsimum basilicum</i>	Bobai	Whole plant	Makarsankrati pooja
92	<i>Pheonix sylvestre</i>	Khajoor	Fruit	Addra nakshtra pooja
93	<i>Phyllanthus amarus</i>	Bhui amla	Whole plant	Aayal Ekadashi, Amlanaumi, Hartalika teej, Vad Savitri Puja, Bar amavashya and Laxmi pooja
94	<i>Phyllanthus emblica</i>	Amla	Whole plant	Aayal Ekadashi, Amlanaumi, Hartalika teej, Vad Savitri Puja, Bar amavashya and Laxmi pooja
95	<i>Piper betle</i>	Pan	Leaves	Harchhath, Mangala Gauri, Anant and Druga pooja
96	<i>Pithecelobium dulce</i>	Jangli Jalabi	Pods	Various poojas
97	<i>Plumeria rubra</i>	Champa	Flower	Shivratri, Navratri pooja
98	<i>Pongamia pinnata</i>	Karanj	Flower	Shivratri, Navratri pooja
99	<i>Prosopis cineraria</i>	Shammi	Whole plant	Dasehra, Manglagauri pooja
100	<i>Psidium guajava</i>	Amarood	Fruit	Various poojas
101	<i>Punica granatum</i>	Anar	Fruit	Various poojas
102	<i>Putranjia roxburghii</i>	Putranjiwa	Whole plant	For gattig child
103	<i>Saccharum officinarum</i>	Ganna	Whole plant	Devthan pooja, Ahoashtami, Tulsi vivah

Table 2: Contd.,				
104	<i>Sacchrum spontaneum</i>	Kans, kansa	Whole plant	Harchhath and for decoration
105	<i>Santalum album</i>	Chandan	Stem	Various poojas
106	<i>Saraca asoca</i>	Ashok	Whole plant	Hartalica, Anant pooja, Ashokashtami
107	<i>Schleichera oleosa</i>	Kusum	Whole plant	Various poojas
108	<i>Semecarpus anacardium</i>	Bhilwa	Whole plant	During poojas
109	<i>Sesamum indicum</i>	Til	Seed	Shathila Ekadashi, Makar Sankranti and Til sankranti
110	<i>Shorea robusta</i>	Sal	Whole plant	Worshiped as sacred plant
111	<i>Smilax zeylanica</i>	Ramdaton	Branch	Various poojas and faste
112	<i>Solanum xanthocarpum</i>	Bhatkatyia	Whole plant	Shiratri pooja
113	<i>Sterculia urens</i>	Kullu	Whole plant	Kullu Deo pooja
114	<i>Syzygium cumini</i>	Jamun	Fruit	Durga pooja
115	<i>Tabernaemontana divaricata</i>	Chadni	Flower	Various pooja
116	<i>Tamarindus indica</i>	Imli	Whole plant	During pooja
117	<i>Tectona grandis</i>	Sagon	Whole plant	Worshiped as sacred plant
118	<i>Tegetes erecta</i>	Genda	Flower	During various pooja
119	<i>Termalelia alata</i>	Asna, Koha	Whole plant	Worshiped as sacred plant
120	<i>Terminalia arjuna</i>	Arjun	Whole plant	Various poojas
121	<i>Terminalia chebula</i>	Harra	Whole plant	Various poojas
122	<i>Terminallia tomentosa</i>	Saja	Whole plant	Worshiped as sacred plant
123	<i>Thespesia lampas</i>	Van kapas	Fruit	Various poojas
124	<i>Thevetia peruviana</i>	pili kaner	Flower	Shivratri pooja
125	<i>Thuja orientalis</i>	Mayurpankh	Leaves	Poojas
126	<i>Trapa bispinosa</i>	Singhada	Seed	Diwali & other Poojas and to eat during faste
127	<i>Woodfordia fruticosa</i>	Dhawai	Flower	Various poojas
128	<i>Ziziphus nummularia</i>	Ber	Fruit	Harchhath pooja and to eat during faste
129	<i>Zizyphus jujba</i>	Ber	Branch, fruit	Hal Shasthim and Harchhath

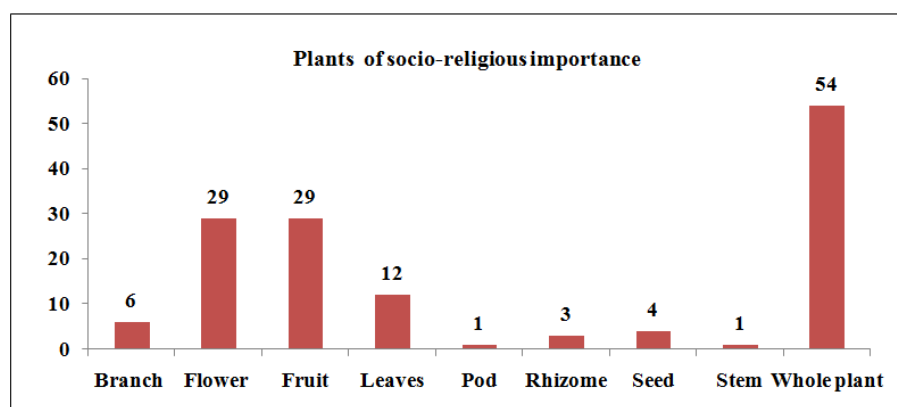


Figure 1: Plant Parts used in Religious Occations

## CONCLUSIONS

It is evident from the present study that, the role of sacred groves is highly utilized as in-situ and ex-situ conservation of plant resources. Most of the plant species and their diversity are protected by the local communities for the nature conservation and socio-religious beliefs. These are the indicator of rich vegetation. One of the most important and traditional significance of sacred groves is that, it acts as a repository for various medicines and multifarious utilizable

NTFPs, which are lacking in the surrounding forest areas. These plant species are well conserved in these graves, because of the taboos and religious beliefs of local tribal communities. Sacred groves are also very important as a protected area to various fauna species.

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